# OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT

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The mission of the Office of Environmental Health Hazard Assessment (OEHHA) is to protect and enhance public health and the environment by objective scientific evaluation of risks posed by hazardous substances.

Consistent with the goals and objectives outlined in Cal/EPA's Strategic Vision, OEHHA provides health assessments and health risk assessment guidelines to Cal/EPA's boards, departments, and offices. OEHHA's accomplishments and priorities for the first half of 2002 concern its scientific investigations and assessments of the health effects of exposures to air pollutants, pesticides, drinking water contaminants, and other hazardous substances. OEHHA also assisted Cal/EPA with promoting environmental justice by providing expertise to Cal/EPA boards and departments to minimize any disproportionate impacts that hazardous substances may have on low-income and minority communities.

## Strategic Plan Goals

OEHHA's primary responsibility is to develop scientific information needed to protect human health and the environment. OEHHA is not a "traditional" regulatory agency in that it does not issue permits or enforce laws and regulations. Instead, OEHHA provides State and local agencies with information on the toxicity of hazardous substances. That information is then used in setting standards, enacting regulations, and taking other actions to reduce exposure to toxic substances. OEHHA's accomplishments and priorities reflect its responsibilities and support the following goals established in the 2001 strategic plan:

- Goal 1: Improve the quality of the public's health and the environment.
- **Goal 2**: Advance the science for the evaluation of risks posed to the public health and environment, and provide risk assessment leadership for the State of California.
- Goal 3: Provide quality, useful, and equitable service to the public.
- **Goal 4**: Seek continuous improvement in the effective and efficient use of our internal resources to accomplish our mission.

## Children's Environmental Health Protection

Under the Children's Environmental Health Protection Act (SB 25, Escutia, Chapter 731, Statutes of 1999), OEHHA—in conjunction with the Air Resources Board (ARB)—has been investigating the effects of chemical contaminants in the air on children's health. These contaminants include particulate matter (PM) and sulfates. Children may have greater exposure than adults to airborne pollutants because they spend more time outdoors and they breathe more rapidly than adults. Children are also more susceptible to the health effects of air pollution because their immune systems and organs are still developing.

As part of these investigations, OEHHA is currently reviewing whether the State's ambient air quality standards are adequate to protect the health of infants and children. OEHHA is also examining contaminants of concern that may be present at school sites.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goals:

**Cal/EPA Goal 1**: Air that is healthy to breathe, sustains and improves our ecosystems, and preserves natural and cultural resources.

**Cal/EPA Goal 5**: Reduce or eliminate the disproportionate impacts of pollution on low-income and minority populations.

Cal/EPA Goal 7: Continuous improvement and application of science and technology.

## **Accomplishments**

- 1. Particulate Matter Ambient Air Quality Standards: OEHHA completed the draft report describing the scientific literature on the health effects of particulate matter (PM). In 2000, OEHHA and ARB made particulate matter the highest priority for review under the Children's Environmental Health Protection Act because of evidence that the current standard may not adequately protect children. The report and proposed standards underwent public comment as well as review by the Air Quality Advisory Committee (an independent scientific panel convened by the University of California), and was submitted to the ARB for its consideration and adoption.
- 2. School Site Risk Assessment: OEHHA staff released for public comment the report titled "Development of Health Criteria for School Site Risk Assessment Pursuant to Health and Safety Code 901(g)." It identifies chemical contaminants commonly found at school sites that are determined to be of greatest concern. The assessment is based on criteria that identify the exposures and physiological sensitivities of children to these contaminants. The document explains how the list of contaminants was compiled.
- 3. **East Bay Children's Respiratory Health Study**: OEHHA evaluated data collected from schools in the greater Oakland area to examine any associations between traffic-related air pollutants and children's respiratory health. Preliminary analyses indicate that proximity of schools to heavily traveled roadways may be associated with respiratory symptoms in the children. OEHHA, through a contract, also completed neighborhood monitoring that will be used to evaluate overall exposure in neighborhoods to air pollutants.
- 4. **Statewide Traffic Studies and Children's Respiratory Health**: OEHHA has evaluated the proximity of California schools to roadways. The study indicated that 10 percent of California's public schools are within 150 meters of busy roadways (more than 25,000 vehicles per day) and 2.3 percent of public schools are within 150 meters of high traffic roads (more than 50,000 vehicles per day). This data is important in assessing factors that may contribute to children's exposures to traffic-related air pollution.

5. **Children's Environmental Health Symposium**: OEHHA held its third annual symposium on children's environmental health on May 30–31 in Sacramento. The symposium featured presentations on the exposures of children to environmental contaminants and related children's environmental health issues.

#### **Priorities**

- 1. **Ambient Air Quality Standards for Particulate Matter**: OEHHA will continue working with the ARB to complete comments regarding the proposed revisions to the Ambient Air Quality Standards for PM10 and PM2.5 (particulate matter of 10 and 2.5 microns).
- 2. **Criteria Air Pollutants**: Ozone—OEHHA will begin a review of epidemiological and toxicological literature in preparation for a reevaluation of the State standard. Ozone was given second highest priority (following particulate matter) during the review and prioritization of the ambient air quality standards under the Children's Environmental Health Protection Act.
- School Site Risk Assessment: Staff will identify and develop toxicity criteria for five
  chemicals found at schools that may be of greatest concern to children's health. Staff will
  also develop guidelines for the assessment of risks from chemical contaminants at school
  sites.
- 4. **East Bay Children's Respiratory Health Study**: OEHHA will continue to analyze data from the East Bay children's respiratory health study to examine the relationship between busy roadways near schools and respiratory symptoms in children.
- 5. **Statewide Traffic Studies and Children's Respiratory Health**: OEHHA will complete more detailed analyses of the proximity of schools to heavily traveled roads to further examine demographic and socioeconomic trends concerning the exposure of California schoolchildren to traffic-related pollutants.
- 6. **Risk Assessment Evaluation**: OEHHA will continue evaluating its health risk assessment methods for adequacy in protecting infants and children. This includes reviewing scientific literature to gain a better understanding of the differences in exposure and response to toxicants by age. It also includes developing proposed changes to the risk assessment guidelines used for identifying levels of exposures to toxicants that would not be expected to pose a significant health risk. OEHHA anticipates that this evaluation will be completed in late 2004.

## **Public Health Goals**

The Calderon-Sher California Safe Drinking Water Act of 1996 requires OEHHA to develop public health goals (PHG) for chemical contaminants in drinking water. A PHG is the level of a chemical contaminant in drinking water that, based upon currently available data, does not pose a significant risk to health. State law requires the Department of Health Services to set regulatory

drinking water standards as close to the corresponding PHGs as is economically and technically feasible.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

Cal/EPA Goal 3: Groundwater that is safe for drinking and other beneficial uses.

## **Accomplishments**

- 1. **PHG for Perchlorate**: OEHHA has completed a draft PHG for perchlorate in drinking water. Following the posting of the draft PHG, OEHHA held a public comment period and public workshop to receive comments on the draft PHG.
- 2. **PHGs for 11 Chemicals**: OEHHA has released draft PHGs for the following 11 chemicals: asbestos; barium; beryllium; chlorobenzene; 1,1,-dichloroethane; diethylhexyladipate; ethylene dibromide; hexachlorobenzene; silvex; 1,1,2,2,-tetrachloroethane; and toxaphene. Public comment periods and workshops are scheduled for these proposed PHGs. OEHHA also continued work on development of a draft PHG for arsenic.

#### **Priorities**

- 1. **PHG for Arsenic**: OEHHA expects to complete a draft PHG for arsenic, send the draft out for peer review, and post the document for public review this fall.
- 2. **PHG for Perchlorate**: OEHHA will continue to review public comments on its draft PHG for perchlorate in drinking water and should issue the PHG during the second half of 2002.
- 3. **PHG for Hexavalent Chromium (Chromium VI)**: OEHHA is continuing its investigations of the potential health effects of chromium VI in drinking water and expects to complete a PHG for the substance by spring 2003.
- 4. **PHGs for 11 Chemicals**: OEHHA will complete the public-comment period for 11 draft PHGs and will hold a public workshop in July to receive public comments. The chemicals are asbestos; barium; beryllium; chlorobenzene; 1,1,-dichloroethane; diethylhexyladipate; ethylene dibromide; hexachlorobenzene; silvex; 1,1,2,2,-tetrachloroethane; and toxaphene.
- 5. **PHGs for 19 Additional Chemicals**: OEHHA will continue the development of draft PHGs for 19 chemical contaminants in drinking water.

## Environmental Protection Indicators For California (EPIC)

OEHHA is the lead agency for the Environmental Protection Indicators for California (EPIC) project. The agency will develop environmental indicators that will be used to assess the overall health of California's environment and the effectiveness of the State's environmental programs.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

Cal/EPA Goal 8: An efficient and effective Cal/EPA in pursuit of its mission.

## **Accomplishments**

EPIC Report: The project has released two documents: (1) "Environmental Protection
Indicators for California," which describes the process for the identification and selection of
environmental indicators and presents the initial set of environmental indicators; and
(2) "Environmental Protection Indicators for California: Understanding Environmental
Conditions Through Indicators," a condensed version of the first document that highlights
selected indicators from the full report and is intended for a broader audience. The full report
is available on CD-ROM and on the OEHHA Web site at <a href="www.oehha.ca.gov/multimedia/epic/Epicreport.html">www.oehha.ca.gov/multimedia/epic/Epicreport.html</a>

## Air Toxics Hot Spots Program

Health and Safety Code section 44300 (the Air Toxics Hot Spots Information and Assessment Act) mandates OEHHA to develop guidelines for assessing health risks posed by major California facilities that emit air toxins.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

Cal/EPA Goal 1: Improve the quality of the public's health and the environment.

## **Accomplishments**

- 1. **Reference Exposure Levels**: OEHHA submitted five proposed chronic reference exposure levels (REL) to the Scientific Review Panel on Toxic Air Contaminants (SRP), a panel of independent scientists administered by ARB. One REL, for carbon disulfide, was approved and adopted for the Air Toxics Hot Spots program. OEHHA has also drafted a chronic REL for crystalline silica. The REL is currently undergoing management review. (A chronic REL is an airborne level of a contaminant that would pose no significant health risk to individuals indefinitely exposed to that chemical at that level.) RELs are based solely on health considerations and are developed from the best available data in the scientific literature. The RELs reflect considerations of potential health impacts on infants and children, as required by the Children's Environmental Health Protection Act.
- 2. Guidance Manual: OEHHA, in cooperation with ARB, released for public review the draft "Air Toxics Hot Spots Guidance Manual for Preparation of Risk Assessments." The document condenses information from the four technical support documents adopted for use in conducting health risk assessments for the Air Toxics Hot Spots program. The guidance manual will be used by local air quality management districts and air pollution control districts as well as the facilities conducting risk assessments. The document will undergo peer review by the SRP.

3. **Risk Assessment Reviews**: OEHHA has reviewed 11 risk assessments submitted by the air districts under the Air Toxics Hot Spots program.

#### **Priorities**

- 1. **Reference Exposure Levels**: OEHHA will continue to work with the SRP on approval and adoption of four RELs for the Air Toxics Hot Spots program. In addition, OEHHA will work toward finalizing the chronic REL for crystalline silica.
- 2. **Guidance Manual**: OEHHA will continue to work with ARB and the SRP on finalizing the "Air Toxics Hot Spots Guidance Manual for Preparation of Risk Assessments."
- 3. **Health Risk Assessment Review**: OEHHA will continue to review health risk assessments submitted by the air districts under the Air Toxics Hot Spots program.

## Toxic Air Contaminant Program

OEHHA performs risk assessments of substances that are candidates for regulation by ARB under the Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner, Chapter 1047, Statutes of 1983).

Priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

#### Cal/EPA Goal 1

#### **Priorities**

1. **Environmental Tobacco Smoke**: OEHHA will complete the update of the report "Health Effects of Environmental Tobacco Smoke." The document will undergo peer and public review by early 2003.

## Health Risk Assessments for Chemical Contaminants in the Environment

OEHHA's health risk assessments and the guidance that OEHHA provides to State and local agencies often form the basis for regulatory actions that reduce the public's exposure to hazardous contaminants.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goals:

#### Cal/EPA Goal 3

**Cal/EPA Goal 4**: Communities that are free from unacceptable human health and ecological risks due to exposure from hazardous substances and other potential harmful agents.

Cal/EPA Goal 6: Ensure the efficient use of natural resources.

## **Accomplishments**

- 1. **Action Level for Chlorate**: OEHHA developed an action level of 0.8 parts per billion for chlorate in drinking water. Action levels are health-based advisory levels established for chemicals in drinking water for which regulatory drinking water standards have not yet been established.
- 2. **Health Risk Assessments for Contaminated Sites**: Staff worked with the State Water Resources Control Board (SWRCB) and the California Integrated Waste Management Board (CIWMB) to evaluate 20 contaminated sites. Staff completed reviews of risk assessment work plans, final risk assessment documents, and remedial alternatives. Staff also completed supporting technical reports for soil gas analysis and sampling strategies.
- 3. **Health Risk Assessment Training**: OEHHA staff collaborated with the CIWMB closed, illegal, and abandoned sites section to conduct training on the risk assessment process for local environmental assessors.
- 4. **Fuels Multimedia Impact Assessment Program**: OEHHA completed an assessment for ARB of the potential adverse health effects of a diesel fuel additive package.
- 5. **Health Risk Assessment of Hexavalent Chromium (Chromium VI)**: OEHHA assisted the Department of Health Services in preparing a report to the Legislature on hexavalent chromium (chromium VI) in public drinking water systems in the San Fernando Basin aquifer. OEHHA assessed potential health risks that could be associated with the presence of chromium VI in the region's drinking water. The report was mandated by SB 2127 (Schiff, Chapter 868, Statutes of 2000).

#### **Priorities**

1. **Fuels Multimedia Impact Assessment Program**: OEHHA will complete a draft technical support document on the potential adverse health effects of reformulated fuels.

## Pesticide Exposure Training, Risk Assessments, and Field Investigations

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goals:

#### Cal/EPA Goal 4 and Goal 5

## **Accomplishments**

1. **Pesticide-Illness Recognition Training**: OEHHA staff provided training in pesticide illness recognition to physicians and medical personnel throughout California and in Ensenada, Mexico. The training in Mexico was a cooperative effort with the Cal/EPA California-Baja California border environmental program and the Baja environmental health department. Staff also completed a related document, "Guidelines for Physicians Who Supervise Workers Exposed to Cholinesterase-Inhibiting Pesticides" (4th ed., 2002).

- 2. **Pesticide Exposure Field Investigations**: Staff completed a follow-up survey of possible long-term health ailments among Earlimart (Tulare County) residents who were accidentally exposed to metam sodium in 1999.
- 3. **Technical Expertise for Pesticide Regulations**: OEHHA assisted DPR in developing and amending regulations for the Human Research Subjects Review Board and the respirator protection standard. OEHHA also began working with DPR to prioritize active ingredients in pesticides for which health risk assessments should be completed.
- 4. **Peer Review**: Staff completed comments to the U.S. Environmental Protection Agency (U.S. EPA) on 1) its risk assessment guidance for cumulative organophosphate risk assessment and 2) on its draft Food Quality Protection Act implementation policy on the application of uncertainty factors to account for gaps in information on the health effects of pesticides.

#### **Priorities**

- Guidelines for Cholinesterase-Inhibiting Chemicals: OEHHA will work with DPR to continue developing guidance for conducting risk evaluations of chemicals that inhibit cholinesterase.
- 2. **Pesticide Exposure Field Investigations**: Staff will complete the analysis of data collected from the survey of Earlimart community residents.
- Technical Expertise for Pesticide Regulations: Staff will continue to work with DPR to prioritize active ingredients in pesticides for which health risk assessments should be completed.
- 4. **Health Risk Assessments**: OEHHA will submit findings on chlorpyrifos and other candidates for consideration as toxic air contaminants.
- 5. **Peer Review**: Staff will submit comments on DPR's draft risk characterization document for methyl bromide by the end of 2002.

## Fish Consumption Advisories

OEHHA assesses risks from chemical contaminants in sport fish and issues fish consumption advisories. These advisories provide the public with recommended limits for the consumption of fish species in specific locations that may contain elevated levels of methylmercury and other contaminants.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goals:

**Cal/EPA Goal 2**: Rivers, lakes, estuaries, and marine waters that are fishable and swimmable, and support healthy ecosystems and other beneficial uses.

## **Accomplishments**

- 1. **Fish Consumption Advisories**: OEHHA completed a report recommending consumption advisories for water bodies in the Bear and Yuba River watersheds in the northern Sierra Nevada mountain range.
- 2. Technical Expertise on Chemical Contaminants in Fish: OEHHA staff provided technical support to the Department of Toxic Substances Control (DTSC) for DTSC's evaluation of the hazardous waste classification of mercury. OEHHA assisted the Trinity County Department of Environmental Health in evaluating mercury contamination in fish in Trinity Lake and assisted the CALFED Bay-Delta Program, the Central Valley Regional Water Quality Control Board, and the Delta Tributary Mercury Council in developing a fish consumption survey for the Delta. OEHHA provided technical support to the San Diego Regional Water Quality Control Board concerning sediment contamination in San Diego Bay.

#### **Priorities**

- 1. **Fish Consumption Advisories**: OEHHA will continue to work on a draft report for sport fish consumption in San Pablo Reservoir (Contra Costa County) and a final report for sport fish consumption in Black Butte Reservoir (Glenn County). OEHHA will also continue assessments of contaminated fish in Tomales Bay, the Delta, and other water bodies.
- 2. **Montrose Settlements Restoration Program**: OEHHA is working as a member of a technical advisory committee for the Montrose Trustees to plan fish sampling at piers in Santa Monica Bay neighboring the Palos Verdes Shelf. The Montrose Trustees comprise several agencies: Department of Fish and Game, State Lands Commission, Department of Parks and Recreation, National Atmospheric and Oceanic Administration, and U.S. Fish and Wildlife Service.

## California-Baja California Border Environmental Program

OEHHA is participating in the California-Baja California border environmental program, which involves the work of various State and local agencies in California and Mexico that are addressing air and water pollution, hazardous waste contamination, and other environmental problems in the border region.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

#### Cal/EPA Goal 5

## **Accomplishments**

1. **Training in Toxicology and Risk Assessment**: OEHHA staff conducted training for medical personnel and University of Baja California faculty in toxicology and risk assessment.

- 2. **Joint Study of Lead Exposure**: The program obtained funding for a joint study of lead exposure among preschool children in Tijuana. The study will be completed with the Baja California health department.
- 3. **Lead Contamination Analysis**: OEHHA and the Department of Health Services (DHS) analyzed samples of Mexican candies for sale on the California-Baja California border and confirmed that the candies were contaminated with lead. DHS is currently taking appropriate enforcement actions.

#### **Priorities**

- 1. **Training in Toxicology and Risk Assessment**: Staff will continue to conduct training of Mexican colleagues in toxicology and risk assessment.
- 2. **Joint Study of Lead Exposure**: Staff will continue collaborating with the Baja California Health Department on lead exposure study.
- 3. **Fish Consumption Advisory**: The program will investigate the feasibility of testing fish in the New River to support the development of a fish advisory. The New River, which crosses the international border between Mexicali and Calexico, has significant chemical pollution.
- 4. **Border Educational Campaign**: OEHHA will coordinate an educational campaign, in coordination with DHS, for consumers of lead-contaminated candies for sale on the California-Baja California border.

## **Proposition 65**

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, requires the publication and updating of a list of chemicals that are known to the State of California to cause cancer, birth defects, or other reproductive harm. OEHHA is responsible for administering the Proposition 65 program.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goals:

**Cal/EPA Goal 4**: Seek continuous improvement in the effective and efficient use of our internal resources to accomplish our mission.

#### Cal/EPA Goal 7

## **Accomplishments**

1. **Safe Harbor Levels**: OEHHA adopted "safe harbor levels" into regulation for 22 chemicals on the Proposition 65 list. Safe harbor levels identify levels of exposures to chemicals that cause cancer or reproductive toxicity that do not require businesses to provide warnings under Proposition 65. Among these 22 chemicals were DEHP, lead, benzene and cadmium.

- 2. **Administrative Additions to Proposition 65 List**: One substance, triphenyltin hydroxide, was added to the Proposition 65 list of chemicals known to the State to cause birth defects and other reproductive harm. Four other chemicals-bromate, diuron, napthlalene and pyridine-were added to the list of chemicals known to cause cancer.
- 3. **Clear and Reasonable Warning Regulations**: Following a public hearing and public comment period, OEHHA drafted a revision to State regulations addressing the administering of Proposition 65 warnings in emergency medical situations.
- 4. **Clarifying Regulations**: The director and chief deputy director of OEHHA met with numerous stakeholders to receive input on regulatory proposals involving safe use determinations and the naturally occurring exemption. The safe use determination regulation was publicly noticed on May 17.

#### **Priorities**

- 1. **Additions to Proposition 65 List**: OEHHA will consider the listing of as many as seven chemicals under the "authoritative bodies" and "formally required to be labeled" listing mechanisms.
- 2. **Developmental and Reproductive Toxicant (DART) Committee**: The DART committee will consider the listing of two or three chemicals and the delisting of bromacil lithium salt. OEHHA has prepared hazard identification documents on these chemicals. The committee will also consider whether to designate the National Toxicology Program's Center for Evaluation of Risks to Human Reproduction as an authoritative body.
- 3. Carcinogen Identification Committee (CIC): The CIC will consider the listing of additional chemicals.
- 4. **Random Selection of Chemicals**: OEHHA will prioritize the 50 chemicals that were randomly selected for further evaluation for possible listing as carcinogens under Proposition 65. Each of the 50 chemicals will be screened for cancer potential based on a review of the available scientific literature and will be prioritized. Chemicals with highest priority will ultimately be reviewed by the CIC.
- Clear and Reasonable Warning Regulations: OEHHA expects to adopt a regulation addressing the administering of Proposition 65 warnings in limited emergency medical situations.
- 6. **Safe Use Determinations (SUDs)**: OEHHA will hold a public hearing on a proposed regulation that would make changes to OEHHA's rules and procedures for considering SUD applications from businesses. An SUD is an advisory opinion issued by OEHHA concerning the uses of a product containing a chemical listed under Proposition 65 that would not pose a risk to the public and, therefore, would not require a warning. The public hearing will occur July 1.

## Registered Environmental Assessor Program

The Registered Environmental Assessor (REA) program certifies and maintains a directory of environmental professionals who are highly qualified to conduct environmental site assessments, oversee site cleanups, perform compliance audits, prepare waste reduction plans, and handle other kinds of environmental work.

Accomplishments and priorities under this category are linked to the following Cal/EPA Strategic Vision goal:

**Cal/EPA Goal 4**: Seek continuous improvement in the effective and efficient use of our internal resources to accomplish our mission.

## **Accomplishments**

- 1. **Geology Work Group**: At the request of Cal/EPA, the REA program is overseeing an agencywide work group to evaluate which, if any, of the activities conducted by staff of the Cal/EPA boards, departments, and offices constitute the practice of geology. Membership and meeting dates were identified.
- 2. **Outreach**: The REA program continued to update its Web site with notices of new legislation and upcoming events and revised registration information. The REA program also began a newsletter for its registrants and presented at numerous conferences statewide.
- 3. **Review of Proposed Legislation**: At the request of the DTSC, REA staff reviewed a draft regulation on the implementation of the Private Site Management Act.

### **Priorities**

1. **Geology Work Group**: The REA program will continue to oversee the geology work group to evaluate any geology activities.

## Other Accomplishments

Accomplishments and priorities under this category are linked to all eight of the Cal/EPA Strategic Vision goals.

- 1. **Emergency Response for Biological and Chemical Terrorism**: The State is preparing emergency response plans in the event of terrorist attacks using biological and chemical weapons. OEHHA is participating in an interagency committee on biological and chemical terrorism that is evaluating the State's preparedness in event of such attacks and is developing recommendations for further preparedness for emergency response teams.
- 2. **Toxicology Reviews for Replacement Chemicals**: At ARB's request, OEHHA reviewed the toxicity of tertiary butyl acetate. The review determined whether this chemical is a suitable less-toxic replacement for various volatile organic chemicals in a number of applications. Staff also reviewed the components of PureDry, a replacement for perchloroethylene in dry

- cleaning. This was in response to a request from the Bay Area Air Quality Management District.
- 3. **Neighborhood Assessment Program**: OEHHA continues to work with ARB on its neighborhood assessment program. OEHHA provided health effects information on chromium VI, which has been detected in air monitoring in the Barrio Logan neighborhood in San Diego.
- 4. **Clandestine Drug Lab Program**: OEHHA completed draft fact sheets on chemicals found at sites used as clandestine drug (methamphetamine) manufacturing labs for DTSC's clandestine drug lab program.
- 5. **Risk-Based Screening Levels (RBSL)**: Staff coordinated with DTSC and SWRCB to develop a list of 54 chemicals in preparation for the mandated peer review of RBSLs by the University of California. RBSLs are levels of a chemical in soil that do not pose a significant health risk to humans exposed to the chemical.
- 6. **Health Risk Assessment**: Staff completed risk assessment work plans, final risk assessment documents, remedial alternatives, supporting technical reports—such as soil gas analysis—and sampling strategies for 18 contaminated sites.
- 7. **Human Genome Symposium**: OEHHA organized a symposium, "The Impact of the Human Genome Project on Public Health and Environmental Protection," which took place on June 18, in Sacramento. The symposium featured speakers who discussed the human genome project and the effect it may have on disease prevention, health risk assessment, and agriculture.
- 8. **Tire Fire Report**: OEHHA finalized a report on the potential health hazards from exposure to smoke from burning tires. The report was mandated by SB 876 (Escutia, Chapter 838, Statutes of 2000), which was enacted following the tire fire in Westley (Stanislaus County) in 1999.

## **Other Priorities**

- 1. **Clandestine Drug Lab Program**: OEHHA will complete five additional draft fact sheets on chemicals found at sites used as clandestine drug (methamphetamine) manufacturing labs.
- 2. Emerging Environmental Challenges: Staff will plan a workshop to explore ways in which risk assessors can provide appropriate information to assist risk managers in cases when available scientific data are inadequate for a complete risk assessment. The workshop will use pharmaceuticals and other "non-traditional" chemicals in the environment as examples for study.
- 3. **PBDEs**: OEHHA is making presentations at scientific conferences on polybrominated diphenylethers (PBDEs), a class of chemicals widely used as flame retardants that persist in the environment. OEHHA will continue to monitor scientific research concerning the toxicity and prevalence of PBDEs.

### STATE OF CALIFORNIA

## Gray Davis, Governor

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